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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/049,271

02/06/2002

Gabriel Daemon Engel

PURE-P012US

7734

41066 7590 02/05/2008

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EXAMINER

VAUGHN, GREGORY J

ART UNIT

PAPER NUMBER

2178

MAIL DATE

DELIVERY MODE

02/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/049,271	ENGEL ET AL.	
	Examiner	Art Unit	
	Gregory J. Vaughn	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 13-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/23/07 and 3/16/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Application Background

1. This action is responsive to the decision of the Office of Petitions made on 1/22/2008, said decision withdrawing the abandonment filed 3/2/2007. Furthermore, Applicant filed a Request for Continued Examination on 2/23/2007 in Response to the final office action dated 8/23/2006.
2. In the response filed 2/23/2007, applicant has amended claims 1-10 and 13-22; and added new claims 23-30. Claims 11 and 12 were previously canceled.
3. Claims 1-10 and 13-30 are pending in the case, claims 1 and 18 are independent claims.
4. A request for continued examination filed under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after a final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action (dated 8/23/2006) has been withdrawn pursuant to 37 CFR 1.114.
5. Acknowledgment is made to the Information Disclosure statements filed 2/23/2007 and 3/16/2007.

6. the rejection of claims 1-10 and 13-22, rejected under 35 USC 103, as described in the office action dated 8/23/2006 is withdrawn as necessitated by the amended claims, however new grounds of rejection are made, as described below.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4-7, 9, 10 and 13-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadovnik et al., US Patent 5,764,317, filed 6/26/1995, patented 6/9/1998 (hereinafter Sadovnik) in view of McGarry, US Patent 6,859,907, filed 8/9/1999, patented 2/22/2005.

9. **Regarding independent claim 1**, Sadovnik discloses a multi-layer display with a first display screen and a second display screen, where the display screens have screen designation codes in Figure 4A-4D (screen designation codes 1-4 are shown in the figures). Sadovnik discloses simultaneously displaying objects on the various screens in Accordance with

screen designation codes. Sadovnik recites: "*The present invention can advantageously utilize recent advances in liquid crystal development and treats a three-dimensional scene as a set of two-dimensional cross sections, or slices*" (column 3, lines 28-32). Sadovnik discloses a computer controlled display system. Sadovnik recites: "*An IBM 486 PC can be used as the basic element of volumetric screen controller 80*" (column 7, lines 11-12). The IBM 486 PC is a standard computer.

Sadovnik is directed toward displaying objects to produce three-dimensional real life visualization. Sadovnik fails to disclose displaying spreadsheet objects. McGarry is directed toward a machine vision sensor that displays spreadsheet objects. McGarry discloses in Figure 2 combining objects in order to simultaneously display the objects at the same time

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time the invention was made, to combine the multi-layer display as taught by Sadovnik with combining spreadsheet objects, as taught by McGarry, in order to provide: "*to meet the practical requirements of machine vision processing, while still retaining the fundamental characteristics and ease-of-use of a conventional electronic spreadsheet*" (McGarry, column 2, lines 34-37)

10. **Regarding dependent claim 2**, McGarry discloses a conventional electronic spreadsheet, as described above. McGarry discloses a spreadsheet cell in Figure 3 at reference sign 33.

11. **Regarding dependent claim 4**, McGarry discloses a spreadsheet object with a formula that is dependent upon another spreadsheet object in Figure 4 at reference sign 42.
12. **Regarding dependent claims 5 and 6**, McGarry discloses spreadsheets. McGarry recites: "*The superior ease-of-use characteristics of electronic spreadsheets are well known*" (column 1, lines 23-24). Word wrapping and multiple colors of spreadsheet objects is well known.
13. **Regarding dependent claim 7**, McGarry discloses a formula that is dependent upon other cells, as described above. This formula links the cells.
14. **Regarding dependent claim 9**, Sadovnik discloses the objects moving in respect to one another in Figures 4A -4D.
15. **Regarding dependent claim 10**, McGarry discloses an active spreadsheet, as described above.
16. **Regarding independent claim 13**, Sadovnik discloses the use of two or more screens in a multi-layer display where one display screen is positioned in front of the other. Sadovnik recites: "*another object of the invention is to provide a volumetric multi-layer screen that has one or more of the characteristics discussed above but which is relatively simple to manufacture and assemble*" (column 4, lines 28-31). See also Sadovnik's Figure 4A in which the multi-layer display is shown with 4 screens.

17. **Regarding dependent claim 14**, Sadovnik discloses modifying the transparency of the front screens to enhance the visibility of the back screens. Sadovnik recites: *"It is the optical properties of the PDLC that are electrically switchable. Specifically the PDLC film acts as a diffuser when no voltage is applied. Further, under voltage, the film becomes fully transparent. The screen is rapidly switchable from a diffusing (scattering) state to a transparent state"* (column 7, lines 43-48).
18. **Regarding dependent claim 15**, McGarry discloses overlapping spreadsheet objects in Figure 2.
19. **Regarding dependent claims 16 and 17**, McGarry discloses spreadsheet objects with formulas, where the formulas are dependent upon information in other cells, as described above. It is well known in spreadsheet applications that modifying the dependent information will cause an update or modification to the related objects.
20. **Regarding claims 18-22**, the claims are directed to a computer-usable medium for the method of claims 1, 4 and 5-7, respectively, and are rejected using the same rationale.
21. **Regarding dependent claim 23**, McGarry discloses overlapping spreadsheets as described above. McGarry discloses the overlapping objects are related in Figures 4-6.

22. **Regarding dependent claim 24**, Sadovnik discloses a three dimensional object – see the abstract.
23. **Regarding dependent claim 25**, McGarry discloses two objects associated with a single cell in Figure 3, at reference sign 33.
24. **Regarding dependent claims 26-30**, the claims are directed toward a computer-usable medium for the method of claims 9, 10, 14, 16 and 24, respectively, and are rejected using the same rationale.
25. Claim 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadovnik in view of McGarry, in further view of Courter et al. Microsoft Office 2000 Professional Edition, 1999 (hereinafter Courter).
26. **Regarding dependent claims 3 and 8**, Sadovnik and McGarry disclose visual effects in the manipulation of data, with screen designations of groups of data and simultaneous data display on a multi-layer display as described above. Sadovnik and McGarry fail to disclose the use of tabs corresponding to the groups of data (claim 3) or the use of error messages. Courter teaches the use of tabs for groups of data. Courter discloses in Figure 22.1 on page 543 a spreadsheet using tabs to group the data (shown as "*Sheet tabs*"). Courter teaches the use of error messages on page 685 in table 27.1 titled "*Error Codes*"

Therefore, it would have been obvious, to one of ordinary skill in the art at the time the invention was made, to use tabs, as taught by Courter, to

manage Sadovnik and McGarry's groups of data in order to "*enter and format spreadsheets, create formulas, design charts, and manage and analyze data*" (Courter, page xxxi, fourth paragraph).

Response to Arguments

27. Applicant's arguments with respect to claims 1, 2, 4-10 and 13-22 have been considered but are moot in view of the new ground(s) of rejection, as described above

Conclusion

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory J. Vaughn whose telephone number is (571) 272-4131. The examiner can normally be reached Monday to Friday from 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen S. Hong can be reached at (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory J. Vaughn
Patent Examiner
January 31, 2008

STEPHEN HONG
SUPERVISORY PATENT EXAMINER